Amendments to the Claims

The following Listing of Claims will replace all prior versions and listings of claims in the application:

Listing of Claims

1. (Withdrawn) A database for storing information, comprising: a first element type field for storing information on a plurality of first elements; a second element type field, different than the first element type field, for storing information on a plurality of second elements; the first and second element types being selected from the list of photocuring system elements including substrates, photoinitiators, light sources, sensitizers, UV stabilizers, pigments and dyes; and the first element type field and second element type field each including a name for each element and a representation of a wavelength response for each element.

2. (Withdrawn) The database of claim 1, wherein: the wavelength response for each element is broken into wavelength regions, each wavelength region be represented by a symbol.

3. (Withdrawn) The database of claim 2, wherein: the wavelength response is for wavelengths between 200 nm and 1000 nm and each wavelength region is 50 nm wide.

4. (Withdrawn) The database of claim 1, further comprising: a third element type, different than the first and second element types, selected from the list of photocuring system elements, the third element type field including a name for each element and a representation of a wavelength response for each element.

5. (Currently Amended) A method of optimizing the performance of a light curing polymer system including multiple different ~~component~~ types of components, the ~~component~~ types of components including a light source, a photoinitiator, and a substrate, where the light source is arranged to radiate ~~its light~~ a set of wavelengths through the substrate to the photoinitiator, ~~the light~~

~~source operating at a set of wavelengths,~~ the substrate allow~~ings only~~ a set of wavelengths of light to pass ~~there through~~ therethrough comprising at least one wavelength to which the photoinitiator is responsive, and the photoinitiator~~s only~~ is activated only when it is irradiated with ~~a~~ the set of wavelengths passed through the substrate, the method of optimizing including the steps of:

selecting a first component from a first type of component from a database, said first component operating at a first set of wavelengths defining a first wavelength spectrum; ~~and~~

selecting a second component from a second type of component from the database of a type different than the first type of ~~the first~~ component, the second component operating at a second set of wavelengths ~~and having~~ defining a second wavelength spectrum, at least one wavelength of said second set of wavelengths being present in said first set of wavelengths.; and

displaying the set of wavelengths of the first and second components.

6. (Previously Presented) The method of claim 5, wherein within the database, wavelength regions are established and a representative name is assigned to each wavelength region.

7. (Currently Amended) The method of claim 6, wherein the set of wavelengths for each component ~~are~~ is identified using the representative names for the wavelength regions into which the component wavelength set falls.

8. (Currently Amended) The method of claim 7, wherein ~~said~~ the representative names of the selected first component are compared to the representative names of components of the ~~plurality of~~ second type of components so that only a component of the second type of component having at least one representative name in common with the selected first component can be ~~chosen~~ selected.

9. (Currently Amended) The method of claim 8, comprising the further step of: selecting a component from a third type of component from the database different than the first or second types of components ~~from a plurality of possible third components~~, the third component operating at a

third set of wavelengths ~~and having~~ defining a third wavelength spectrum, at least one wavelength of said third set of wavelengths being present in said first and second sets of wavelengths.

10. (Currently Amended) A method of comparing performance characteristics of components of different types of components of a light curing polymer system where a light source is directed through ~~the~~ a substrate to ~~the~~ a photoinitiator, the light source operating at a first ~~range~~ set of wavelengths, the substrate allow~~ings only~~ a second ~~range~~ set of wavelengths of light to pass ~~there through~~ therethrough, and the photoinitiator ~~only being~~ is activated only when it is irradiated with at least one wavelength that is in the second set ~~a third range~~ of wavelengths, the method of comparing including the steps of:

storing ~~the~~ performance characteristics of ~~the constituents~~ components in memory, the performance characteristics including a name and wavelength response;

selecting a first component of a first type of component;

selecting a second component of a second type of component different from the first type; and

graphically displaying on the same display, the name and wavelength response of the first component and the second component.

11. (Original) The method of claim 10, further comprising the step of: determining an area of an overlapping region of the wavelength responses of the first and second components.

12. (Original) The method of claim 11, wherein the area determination is performed using a sum of the rectangles under the overlapping curves method.

13. (Withdrawn) A method for designing photocuring systems, comprising the steps of: connecting a user terminal with a remote computer storing a photocuring database containing a first element type field for storing information on a plurality of first elements, a second element type

field, different than the first element type field, for storing information on a plurality of second elements, the first and second element types being selected from the list of photocuring system elements including substrates, photoinitiators, light sources, sensitizers, UV stabilizers, pigments and dyes and the first element type field and second element type field each including a name for each element and a representation of a wavelength response for each element; transmitting a first signal representative of a selection of a first element to the remote computer, transmitting a second signal representative of a selection of a second element to the remote computer; receiving from the remote computer a signal containing information on the wavelength response of the first and second elements.

14. (Currently Amended) The method of claim 5 further comprising the steps of:

presenting on a display a menu for selection of a component from the database, the database including at least a set of first components of a first type of component ~~type~~ and a set of second components of a second type of component different than the first type of component; and

presenting on the display at least one second component chosen from the set of second components, each of the chosen at least one second component operating at a second set of wavelengths and having a second wavelength spectrum, the at least one second component chosen because at least one wavelength of said second set of wavelengths is present in the first set of wavelengths, wherein the second component is selected from the at least one second component displayed.

15. (Currently Amended) The method of claim 10 further comprising the steps of:

presenting on a display a menu for selection of a component from a database, the database including at least a set of first components of a first type of component ~~type~~ and a set of second components of a second type of component ~~type~~; and

presenting on the display at least one second component chosen from the set of second components, each of the chosen at-least-one-second component operating at a second set of wavelengths and having a second wavelength spectrum, the at-least-one-second component chosen because at least one wavelength of said second set of wavelengths is present in the first set of wavelengths, wherein the second component is selected from the at-least-one-second component displayed.

16. (New) A method of optimizing a photocuring system where a light source is directed through a substrate to irradiate a photoinitiator, the method of optimizing comprising the steps of:

storing performance characteristics of components of a photocuring system in memory, the performance characteristics including a name and wavelength response, and the components comprising light sources, substrates, and photoinitiators;

(a) selecting a first component;

(b) selecting a second component;

(c) selecting a third component; and

(d) comparing on a same graphical display the name and wavelength response of all selected components;

(e) determining a common area of an overlapping region of the wavelength responses of a combination of all the selected components;

(f) repeating previous steps (a) through (e) and selecting at least one different component that results in a combination of all selected components that is different from all previous combinations; and

(g) selecting from all combinations the combination that has the greatest area of the overlapping region,

wherein the selected components comprise a light source, a substrate, and a photoinitiator, and wherein the light source is disposed to irradiate the substrate with a first set of wavelengths; the substrate allows a second set of wavelengths of light to pass therethrough; and the photoinitiator is disposed to be irradiated by light passed through the substrate and is activated only when it is irradiated with at least one actinic wavelength.

17. (New) The method of claim 16 further comprising the step of:

after step (c) and before step (d), selecting a fourth component.

18. (New) The method of claim 17 wherein the fourth component is a second photoinitiator.

19. (New) The method of claim 17 wherein the fourth component is a second substrate.

20. (New) The method of claim 17 wherein the fourth component is a second light source.